4BAR™

Snapshot

Use on Dimmer	⊘
Outdoor Use	⊘
Sound Activated	✓
DMX	✓
Master/Slave	✓
Autoswitching Power Supply	✓
Replaceable Fuse	✓
User Serviceable	⊘
Duty Cycle	⊘

User Manual

(Included)

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1. BEFORE YOU BEGIN

What is included

- 1 x 4BAR™
- 1 x 4BAR™ transport bag
- 1 x Tripod stand
- 1 x Tripod stand transport bag
- 1 x Footswitch
- 1 x Warranty Card
- 1 x User Manual

Unpacking Instructions

Immediately upon receiving a fixture, carefully unpack the carton, check the contents to ensure that all parts are present, and have been received in good condition. Notify the shipper immediately and retain packing material for inspection if any parts appear damaged from shipping or the carton itself shows signs of mishandling. Save the carton and all packing materials. In the event that a fixture must be returned to the factory, it is important that the fixture be returned in the original factory box and packing.

AC Power

This fixture has an auto-switching power supply that can accommodate a wide range of input voltages. The only thing necessary to do before powering on the unit is to make sure the line voltage you are applying is within the range of accepted voltages. This fixture will accommodate between 100 V~240 VAC, 50-60 Hz. All fixtures must be powered directly off a switched circuit and cannot be run off a rheostat (variable resistor) or dimmer circuit, even if the rheostat or dimmer channel is used solely for a 0% to 100% switch.

Warning! ***All fixtures must be connected to circuits with a suitable Earth Ground.***

Safety Instructions

Please read these instructions carefully, which includes important information about the installation, usage and maintenance of this product.

- Please keep this User Guide for future consultation. If you sell the unit to another user, be sure that they also receive this instruction booklet.
- Always make sure that you are connecting to the proper voltage, and that the line voltage you are connecting to is not higher than that stated on the decal or rear panel of the fixture.
- This product is intended for indoor use only! To prevent risk of fire or shock, do not expose fixture to rain or moisture.
- Make sure there are no flammable materials close to the unit while operating.
- The unit must be installed in a location with adequate ventilation, at least 20 in (50 cm) from adjacent surfaces. Be sure that no ventilation slots are blocked.
- Always disconnect from power source before servicing or replacing lamp or fuse and be sure to replace with same lamp source.
- Secure fixture to fastening device using a safety chain.
- Maximum ambient temperature (Ta) is 104° F (40° C). Do not operate fixture at temperatures higher than this.
- In the event of a serious operating problem, stop using the unit immediately. Never try to repair the unit by yourself. Repairs carried out by unskilled people can lead to damage or malfunction. Please contact the nearest authorized technical assistance center.
- Never connect the device to a dimmer pack.
- Make sure the power cord is never crimped or damaged.
- Never disconnect the power cord by pulling or tugging on the cord.
- Avoid direct eye exposure to the light source while it is on.

Caution! ***There are no user serviceable parts inside the unit. Do not open the housing or attempt any repairs yourself. In the unlikely event your unit may require service, please contact CHAUVET at: 954-929-1115.***

2. INTRODUCTION

Features

- 15-channel DMX LED wash light system
- RGB control of 4 separate lights
- Built-in automated programs via DMX
- Built-in sound activated programs DMX

Features (footswitch)

- Trigger built-in static or automated programs (includes RGB fades)
- Instantly set any program to sound active
- Instantly blackout any program

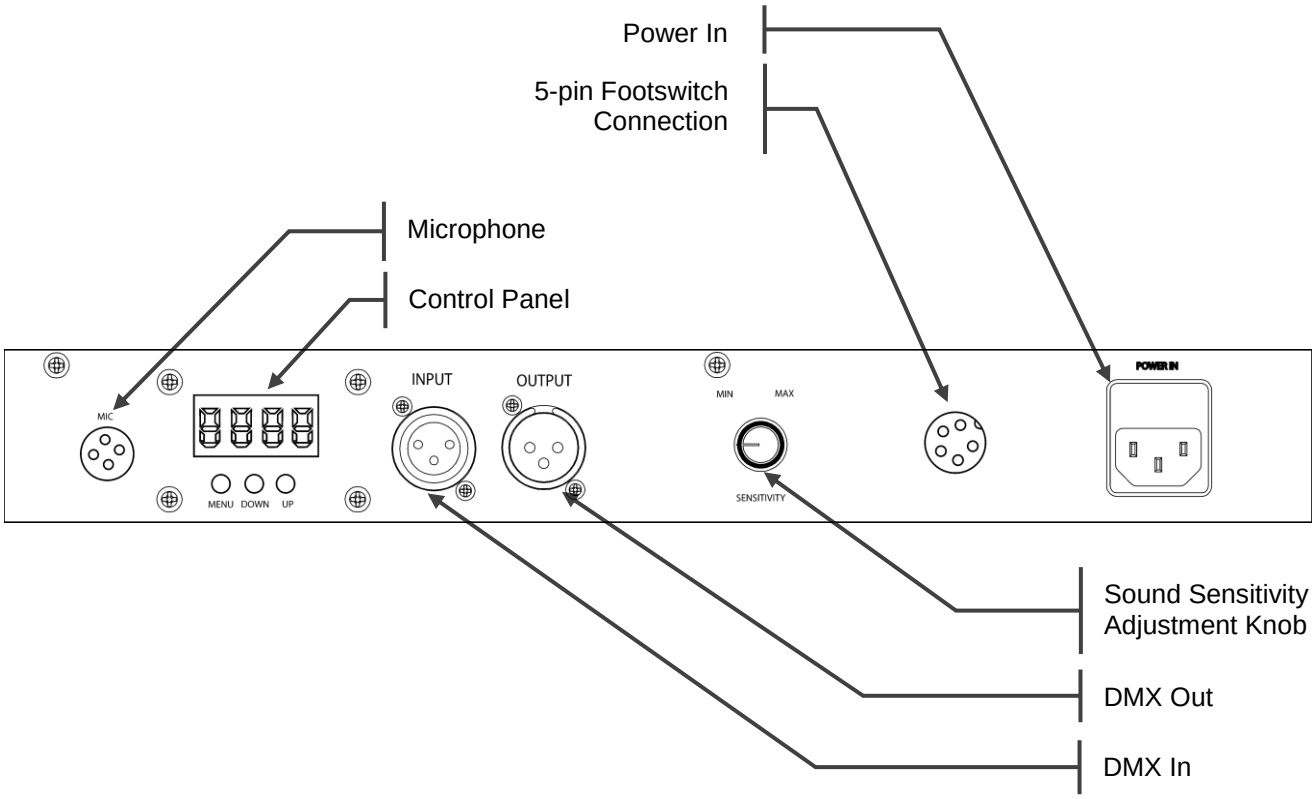
Additional Features

- Includes footswitch with 33 ft cable, tripod with bag and transport case for lights
- Independent positioning of each light
- Low-profile lights are 1.7 in deep
- Adjustable stand height from 56 in to 91 in

DMX Channel Values

CHANNEL	VALUE	FUNCTION		CH 1 Auto Programs	
1	000 ⇔ 009 010 ⇔ 249 250 ⇔ 255	**Control/Operating Mode** RGB Mode (ch.2-15) Auto Programs Sound-Active		010 ⇔ 029 030 ⇔ 049 050 ⇔ 069 070 ⇔ 089 090 ⇔ 109 110 ⇔ 129 130 ⇔ 149 150 ⇔ 169 170 ⇔ 189 190 ⇔ 209 210 ⇔ 229 230 ⇔ 249	Auto 1 Auto 2 Auto 3 Auto 4 Auto 5 Auto 6 Auto 7 Auto 8 Auto 9 Auto 10 Auto 11 Auto 12
2	000 ⇔ 009 010 ⇔ 255	**Master dimmer** No function Dimmer (low ⇔ high)			
3	000 ⇔ 009 010 ⇔ 255	**Strobe** No function Strobe (slow ⇔ fast)			
4	000 ⇔ 255	**Red 1**	RGB Color Mixing 0% ⇔ 100%		
5	000 ⇔ 255	**Green 1**			
6	000 ⇔ 255	**Blue 1**			
7	000 ⇔ 255	**Red 2**	RGB Color Mixing 0% ⇔ 100%		
8	000 ⇔ 255	**Green 2**			
9	000 ⇔ 255	**Blue 2**			
10	000 ⇔ 255	**Red 3**	RGB Color Mixing 0% ⇔ 100%		
11	000 ⇔ 255	**Green 3**			
12	000 ⇔ 255	**Blue 3**			
13	000 ⇔ 255	**Red 4**	RGB Color Mixing 0% ⇔ 100%		
14	000 ⇔ 255	**Green 4**			
15	000 ⇔ 255	**Blue 4**			

Product Overview

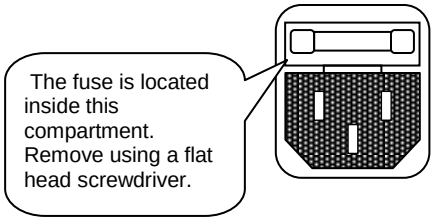


3. SETUP

Disconnect the power cord before replacing a fuse and always replace with the same type fuse.

Fuse Replacement

With a flat head screwdriver wedge the fuse holder out of its housing. Remove the damaged fuse from its holder and replace with exact same type fuse. Insert the fuse holder back in its place and reconnect power.



Fixture Linking

You will need a serial data link to run light shows of one or more fixtures using a DMX controller or to run synchronized shows on two or more fixtures set to a master/slave operating mode. The combined number of channels required by all the fixtures on a serial data link determines the number of fixtures the data link can support.

Important: Fixtures on a serial data link must be daisy chained in one single line. To comply with the EIA-485 standard no more than 32 fixtures should be connected on one data link. Connecting more than 32 fixtures on one serial data link without the use of a DMX optically-isolated splitter may result in deterioration of the digital DMX signal.

Maximum recommended serial data link distance: 500 m (1640 ft)
Maximum recommended number of fixtures on a serial data link: 32

Data Cabling

To link fixtures together you must obtain data cables. You can purchase CHAUVET certified DMX cables directly from a dealer/distributor or construct your own cable. If you choose to create your own cable please use data-grade cables that can carry a high quality signal and are less prone to electromagnetic interference.

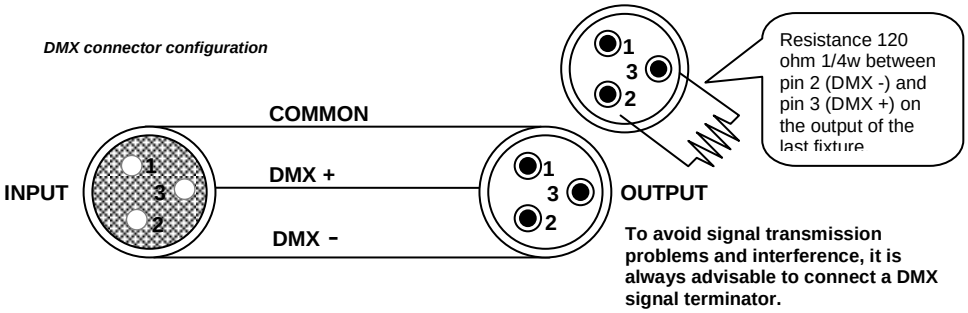
DMX Data Cable

Use a Belden© 9841 or equivalent cable which meets the specifications for EIA RS-485 applications. Standard microphone cables cannot transmit DMX data reliably over long distances. The cable will have the following characteristics:

Type:	*shielded, 2-conductor twisted pair*
Maximum capacitance between conductors:	*30 pF/ft*
Maximum capacitance between conductor and shield:	*55 pF/ft*
Maximum resistance:	*20 ohms/1000 ft*
Nominal impedance:	*100 ~ 140 ohms*

Cable Connectors

Cabling must have a male XLR connector on one end and a female XLR connector on the other end.



To avoid signal transmission problems and interference, it is always advisable to connect a DMX signal terminator.

CAUTION Do not allow contact between the common and the fixture's chassis ground. Grounding the common can cause a ground loop, and your fixture may perform erratically. Test cables with an ohm meter to verify correct polarity and to make sure the pins are not grounded or shorted to the shield or each other.

3-Pin to 5-Pin Conversion Chart

Note! If you use a controller with a 5-pin DMX output connector, you will need to use a 5-pin to 3-pin adapter. The chart below details a proper cable conversion:

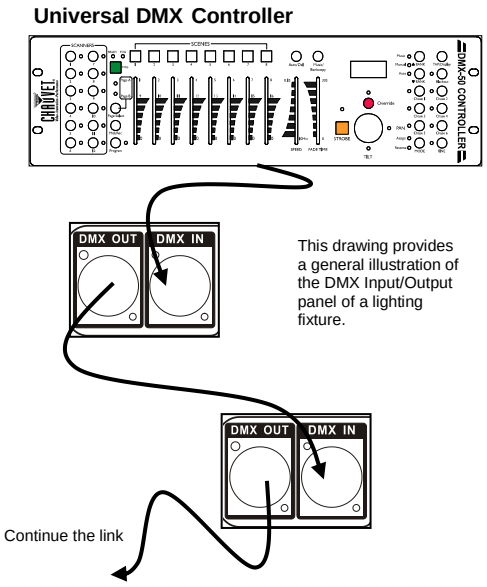
3-PIN TO 5-PIN CONVERSION CHART

Conductor	3-Pin Female (Output)	5-Pin Male (Input)
Ground/Shield	Pin 1	Pin 1
Data (-) signal	Pin 2	Pin 2
Data (+) signal	Pin 3	Pin 3
Not used		Pin 4
Not used		Pin 5

Setting up a DMX Serial Data Link

1. Connect the (male) 3-pin connector side of the DMX cable to the output (female) 3-pin connector of the controller.
2. Connect the end of the cable coming from the controller which will have a (female) 3-pin connector to the input connector of the next fixture consisting of a (male) 3-pin connector.
3. Then, proceed to connect from the output as stated above to the input of the following fixture and so on.

Universal DMX Controller


DMX OUT
DMX IN
This drawing provides a general illustration of the DMX Input/Output panel of a lighting fixture.
DMX OUT
DMX IN
Continue the link

Mounting

Orientation

This fixture may be mounted on the included tripod stand, in any location, provided there is adequate room for ventilation.

Rigging

It is important never to obstruct the vents pathway. The angle of the fixture by loosening both knobs and tilting the fixture. After finding the desired position, retighten both knobs.

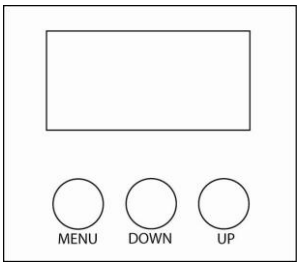
- When selecting installation location, take into consideration access and routine maintenance.
- Never mount in places where the fixture will be exposed to rain, high humidity, extreme temperature changes or restricted ventilation.

4. OPERATING INSTRUCTIONS

Navigating the Control Panel

Access control panel functions using the three panel buttons located directly underneath the LCD Display.

Button	Function
<MENU>	Used to access the menu or to return to a previous menu option
<DOWN>	Scrolls through menu options in descending order
<UP>	Scrolls through menu options in ascending order



The Control Panel LED Display shows the menu items you select from the menu map .When a menu function is selected, the display will show immediately the first available option for the selected menu function.

Menu Map

MENU OPTION	SUB-MENU	FUNCTION / DESCRIPTION	UP BUTTON	DOWN BUTTON
*S:2		Auto displays d.*** after 3 seconds		
	A***	Allows to change DMX address	Changes DMX address in ascending order	Changes DMX address in descending order
	d.***	Displays DMX address; cannot change		
*Snd		Sets to sound-active	Displays current speed	Displays current speed
AUTO		Plays program automatically	Displays current speed	Displays current speed
	S***	Allows to change Auto speed	Change run speed in ascending order	Change run speed in descending order

Operation

DMX Mode

This mode allows the unit to be controlled by any universal DMX controller. If you are unfamiliar with DMX, please read the "DMX Primer" section in the "Appendix" section of this manual.

1) Press the **<MENU>** button until one of the following is displayed: AUTO, Snd, SI2.
2) Immediately, press the **<UP>** button until SI2 is displayed (not necessary if SI2 is already displayed).
3) Wait for 5 seconds, until the display reads "d.***".
4) Press **<MENU>** until the display reads "A***".
5) Then, use the **<UP>** and **<DOWN>** buttons to select the DMX starting address.

Automatic Mode

This fixture has several built-in automatic programs. To access them, please see the below instructions:

1) Press the **<MENU>** button until one of the following is displayed: AUTO, Snd, SI2.
2) Immediately, press the **<DOWN>** button until AUTO is displayed (not necessary if AUTO is already displayed).
3) Wait for 5 seconds.
4) Press **<MENU>** until the display reads "S***".
5) Then, use the **<UP>** and **<DOWN>** buttons to select the operating speed of the program.

Sound Mode

This fixture has several built-in automatic programs. To trigger these programs via sound, please see the below instructions:

1) Press the **<MENU>** button until one of the following is displayed: AUTO, Snd, SI2.
2) Immediately, press the **<UP>** button until Snd is displayed (not necessary if Snd is already displayed).
3) Wait for 5 seconds.
4. Then, use the **<SOUND SENSITIVITY ADJUSTMENT KNOB>** to adjustment the sensitivity of the program to the sound received from the microphone.

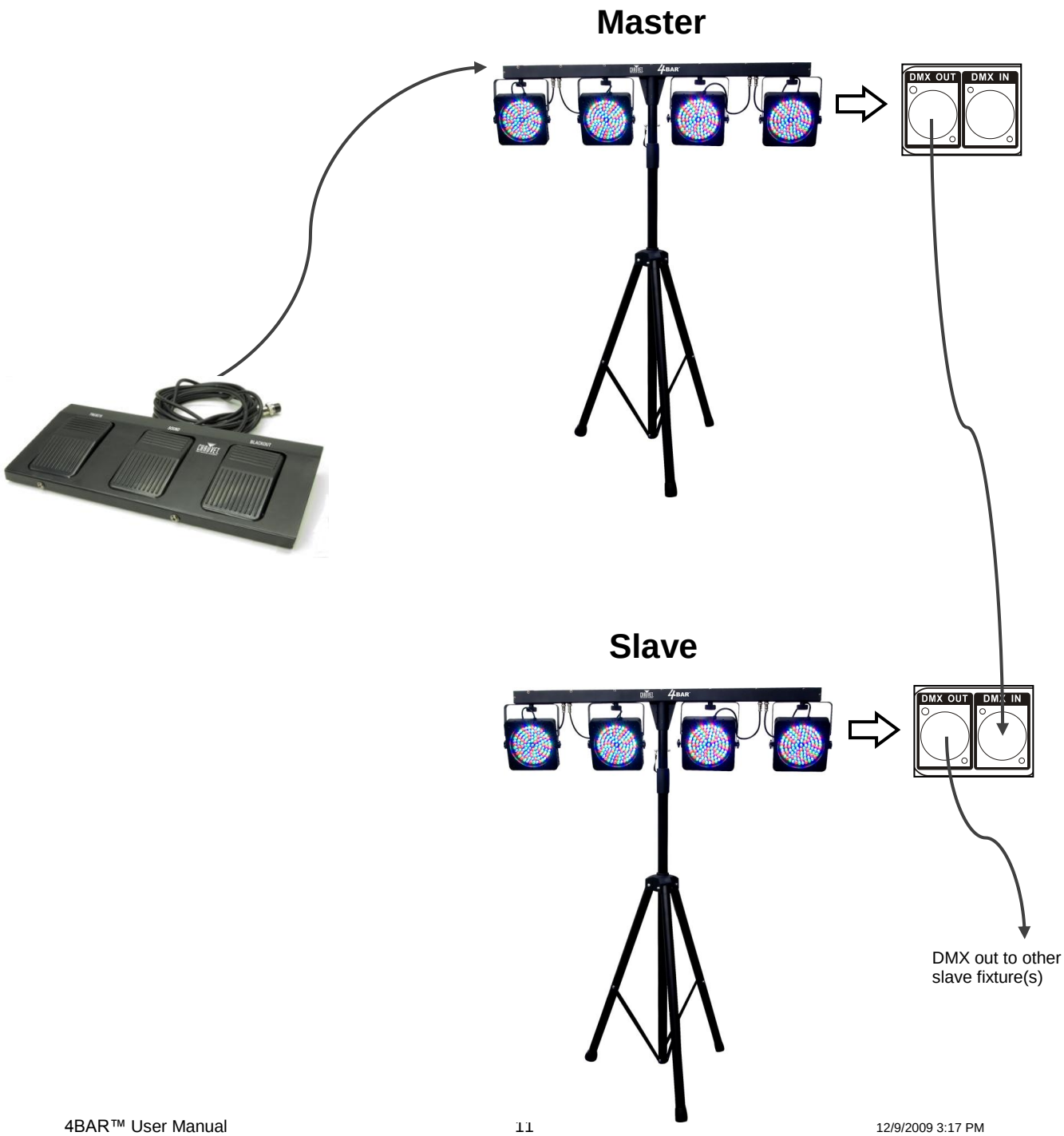
Master/Slave Operation

This mode allows for multiple 4BAR™s to be controlled with a single footswitch. Please see the following instructions for the setup.

1) Connect the footswitch to the first 4BAR™.

2) Then, connect from the DMX Out of the Master 4BAR™ to the DMX In of the Slave unit.

3) Set the DMX starting address of the Slave(s) to "001".



Footswitch operation

The included footswitch provides quick access to preset colors, color change programs, and triggering via the onboard microphone on the 4BAR™. Please see the chart, along with the set of instructions, below for further explanation.

1. Power on the fixture.
2. Connect the footswitch to the 4BAR™ via the 5-pin connection cable with plug.
3. Press pedal # 1 (Preset) to activate control. When this is operating properly, the LEDs on the 4BAR™ will light white (first function on pedal # 1)

PEDAL	SUB-OPTION	FUNCTION
1 (PRESET)	1 x press	White
	2 x press	Red
	3 x press	Green
	4 x press	Blue
	5 x press	Cyan
	6 x press	Yellow
	7 x press	Violet
	8 x press	Color change every second in a continuous loop
	9 x press	Color change every 3 seconds in a continuous loop
2 (SOUND ON)	-	Sound controlled
3 (BLACKOUT)	-	Blackout

Note: ***There is no need to modify any settings for the 4BAR before connecting the footswitch. It will operate properly in any mode.***

Note: ***When using the footswitch in a master/slave configuration, the slave fixture(s) must be set to DMX operating mode, with a starting address of "001". Please see pages 9-11 for instructions to set the 4BAR™ to this mode.***

Disconnecting the Footswitch

In order to properly disconnect the footswitch, please follow these steps:

1. Unplug the footswitch from the 4BAR™.
2. Turn the power to the fixture off (unplug the power cable).
3. Turn the power to the fixture on again (plug in the power cable), and the fixture will properly operate on any one of the 3 modes.

Setting the Starting Address

This DMX mode enables the use of a universal DMX controller device. Each fixture requires a "start address" from 1 to 512. A fixture requiring one or more channels for control begins to read the data on the channel indicated by the start address. For example, a fixture that uses 6 DMX channels and was addressed to start on DMX channel 100, would read data from channels: 100, 101, 102, 103, 104, and 105. Choose start addresses so that the channels used do not overlap, and note the start address selected for future reference.

If this is your first time addressing a fixture using the DMX control protocol, we suggest jumping to the Appendix Section and reading the heading “DMX Primer”. It contains very useful information that will help you understand its use.

General Troubleshooting

Symptom	Solution(s)	Applies to			
		Lights	Foggers & Snow	Controllers	Dimmers & Chaser
Auto shut off	Check fan thermal switch reset	✓			
Breaker/Fuse keeps blowing	Check total load placed on device				✓
Device has no power	Check for power on Mains. Check device’s fuse. (internal and/or external)	✓		✓	✓
Fixture is on but there is no movement to the audio	Make sure you have the correct audio mode on the control switches. If audio provided via ¼” jack, make sure a live audio signal exists Adjust sound sensitivity knob	✓		✓	✓
Lamps cuts off sporadically	Possible bad lamp or fixture is overheating. Lamp may be at end of its life.	✓			
Light will not come on after power failure	Some discharge lamps require a cooling off period before the electronics in the fixture can kick start it again, wait 5 to 10 minutes before powering up	✓			
Loss of signal	Use only DMX cables Install terminator Note: Keep DMX cables separated from power cables or black lights.	✓	✓	✓	✓
No flash	Re-install bulb, may have shifted in shipping	✓			
No light output	Check slip ring & brushes for contact Install bulb Call service technician	✓			
Remote does not work	Make sure connector is firmly connected to device	✓	✓		
Stand alone mode	All Chauvet lighting fixtures featuring stand-alone functions do not require additional settings, simply power the fixture and it will automatically enter into this mode	✓			

If you still have a problem after trying the above solutions, please contact CHAUVET Technical Support at the location on the next page.

Contact Us

World Wide

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fax: 954.929.5560 (Attention: **Service**)

World Wide Web www.chauvetlighting.com

5. APPENDIX

DMX Primer

There are 512 channels in a DMX connection. Channels may be assigned in any manner. A fixture capable of receiving DMX will require one or a number of sequential channels. The user must assign a starting address on the fixture that indicates the first channel reserved in the controller. There are many different types of DMX controllable fixtures and they all may vary in the total number of channels required. Choosing a start address should be planned in advance. Channels should never overlap. If they do, this will result in erratic operation of the fixtures whose starting address is set incorrectly. You can however, control multiple fixtures of the same type using the same starting address as long as the intended result is that of unison movement or operation. In other words, the fixtures will be slaved together and all respond exactly the same.

DMX fixtures are designed to receive data through a serial Daisy Chain. A Daisy Chain connection is where the DATA OUT of one fixture connects to the DATA IN of the next fixture. The order in which the fixtures are connected is not important and has no effect on how a controller communicates to each fixture. Use an order that provides for the easiest and most direct cabling. Connect fixtures using shielded two conductor twisted pair cable with three pin XLR male to female connectors. The shield connection is pin 1, while pin 2 is Data Negative (S-) and pin 3 is Data positive (S+).

General Maintenance

To maintain optimum performance and minimize wear fixtures should be cleaned frequently. Usage and environment are contributing factors in determining frequency. As a general rule, fixtures should be cleaned at least twice a month. Dust build up reduces light output performance and can cause overheating. This can lead to reduced lamp life and increased mechanical wear. Be sure to power off fixture before conducting maintenance.

Unplug fixture from power. Use a vacuum or air compressor and a soft brush to remove dust collected on external vents and internal components. Clean all glass when the fixture is cold with a mild solution of glass cleaner or Isopropyl Alcohol and a soft lint free cotton cloth or lens tissue. Apply solution to the cloth or tissue and drag dirt and grime to the outside of the lens. Gently polish optical surfaces until they are free of haze and lint.

The cleaning of internal and external optical lenses and/or mirrors must be carried out periodically to optimize light output. Cleaning frequency depends on the environment in which the fixture operates: damp, smoky or particularly dirty surrounding can cause greater accumulation of dirt on the unit's optics. Clean with soft cloth using normal glass cleaning fluid. Always dry the parts carefully. Clean the external optics at least every 20 days. Clean the internal optics at least every 30/60 days.

Returns Procedure

Returned merchandise must be sent prepaid and in the original packing, call tags will not be issued. Package must be clearly labeled with a Return Merchandise Authorization Number (RMA #). Products returned without an RMA # will be refused. Call CHAUVET and request RMA # prior to shipping the fixture. Be prepared to provide the model number, serial number and a brief description of the cause for the return. Be sure to properly pack fixture, any shipping damage resulting from inadequate packaging is the customer's responsibility. CHAUVET reserves the right to use its own discretion to repair or replace product(s). As a suggestion, proper UPS packing or double-boxing is always a safe method to use.

Note: If you are given an RMA #, please include the following information on a piece of paper inside the box:

1) Your name
2) Your address
3) Your phone number
4) The RMA #
5) A brief description of the symptoms

Claims

Damage incurred in shipping is the responsibility of the shipper; therefore the damage must be reported to the carrier upon receipt of merchandise. It is the customer's responsibility to notify and submit claims with the shipper in the event that a fixture is damaged due to shipping. Any other claim for items such as missing component/part, damage not related to shipping, and concealed damage, must be made within seven (7) days of receiving merchandise.

Technical Specifications

WEIGHT & DIMENSIONS

Length	47 in (1,193 mm)
Height (fully extended)	91 in (2,311 mm)
Weight	29 lbs (13.2 kg)

POWER

Autoswitching internal power supply	100 V~240 VAC, 50/60 Hz
Fuse	F 2 A, 250 V
Power consumption @ 120 V, 60 Hz	48 W, 0.4 A max
Inrush current @ 120 V, 60 Hz	0.8 A
Power consumption @ 230 V, 50 Hz	37 W, 0.2 A max
Inrush current @ 230 V, 50 Hz	0.2 A

LIGHT SOURCE

LED	432 10 mm (108 per light) (144 Red, 144 Green, 144 Blue) 100,000 hrs

PHOTO OPTIC

Luminance @ 1 m (per light, 1 of 4)	980 lux
Beam Angle (per light, 1 of 4)	21°
Field Angle (per light, 1 of 4)	33°

THERMAL

Maximum ambient operating temperature	104° F (40° C)

CONTROL & PROGRAMMING

Data input	locking 3-pin XLR male socket
Data output	locking 3-pin XLR female socket
Data pin configuration	pin 1 shield, pin 2 (-), pin 3 (+)
Protocols	USITT DMX512-A
DMX Channels	15

ORDERING INFORMATION

4BAR™	4BAR

WARRANTY INFORMATION

Warranty	2-year limited warranty